

# SCRUM – ROLES AND CEREMONIES

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# Scrum Framework

## Roles

- Product owner
- ScrumMaster
- Team

## Ceremonies

- Sprints
- Sprint planning
- Sprint review
- Sprint retrospective
- Daily scrum meeting

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# Product Owner

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- Define the features of the product
  - ▣ Tries to remove conjecture, “I know the customer wants this” as opposed to “I believe this would be a good feature”
- Decide on release date and content
  - ▣ Usually responsible for press releases
- Be responsible for the profitability of the product (ROI)
- Prioritize features according to market value
  - ▣ Conduct market research, feasibility studies
- Adjust features and priority every iteration, as needed
- Accept or reject work results.

# Scrum Master

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- Represents management to the project
  - ▣ Often one of the engineers
- Responsible for enacting Scrum values and practices
- Removes impediments
- Ensure that the team is fully functional and productive
- Enable close cooperation across all roles and functions
- Shield the team from external interferences

# Scrum Team

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- Typically 5-10 people
- Cross-functional
- QA, Programmers, UI Designers, etc.
- Members should be full-time
- May be exceptions (e.g., System Admin, etc.)
- Teams are self-organizing
- Membership can change only between sprints

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# Sprints

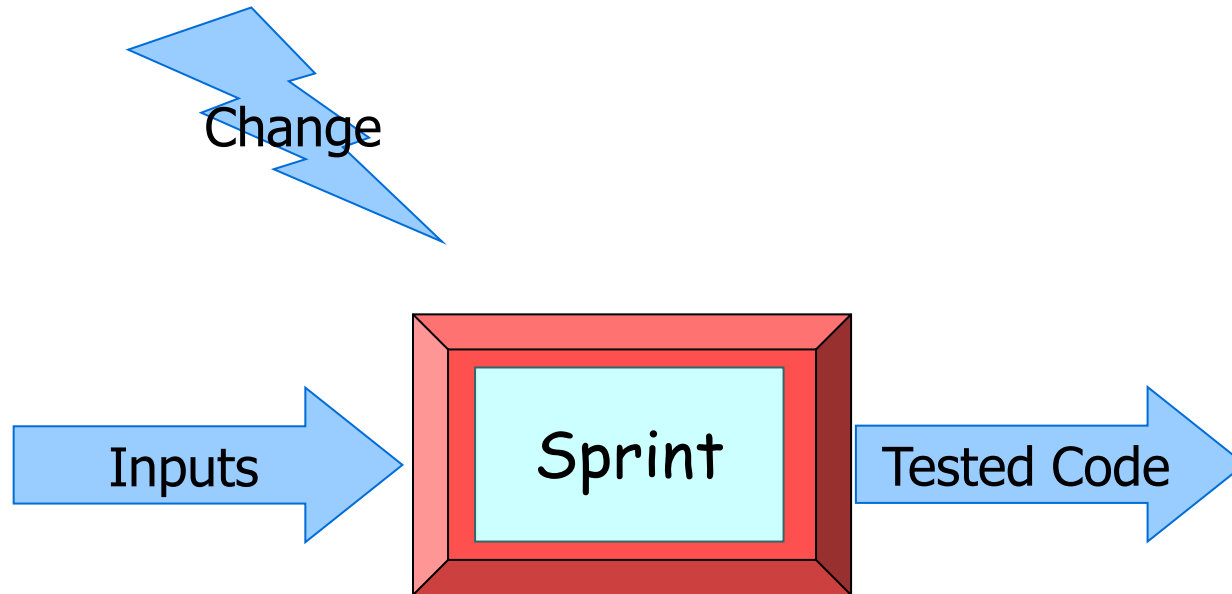
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- Scrum projects make progress in a series of “sprints”
- Target duration is one month
  - ▣ +/- a week or two (2 - 6 weeks max)
    - But, a constant duration leads to a better rhythm
- Product is designed, coded, and tested during the sprint
  - ▣ The output is a build which may or may not be a release
- Move onto the next sprint...



# No changes during sprint

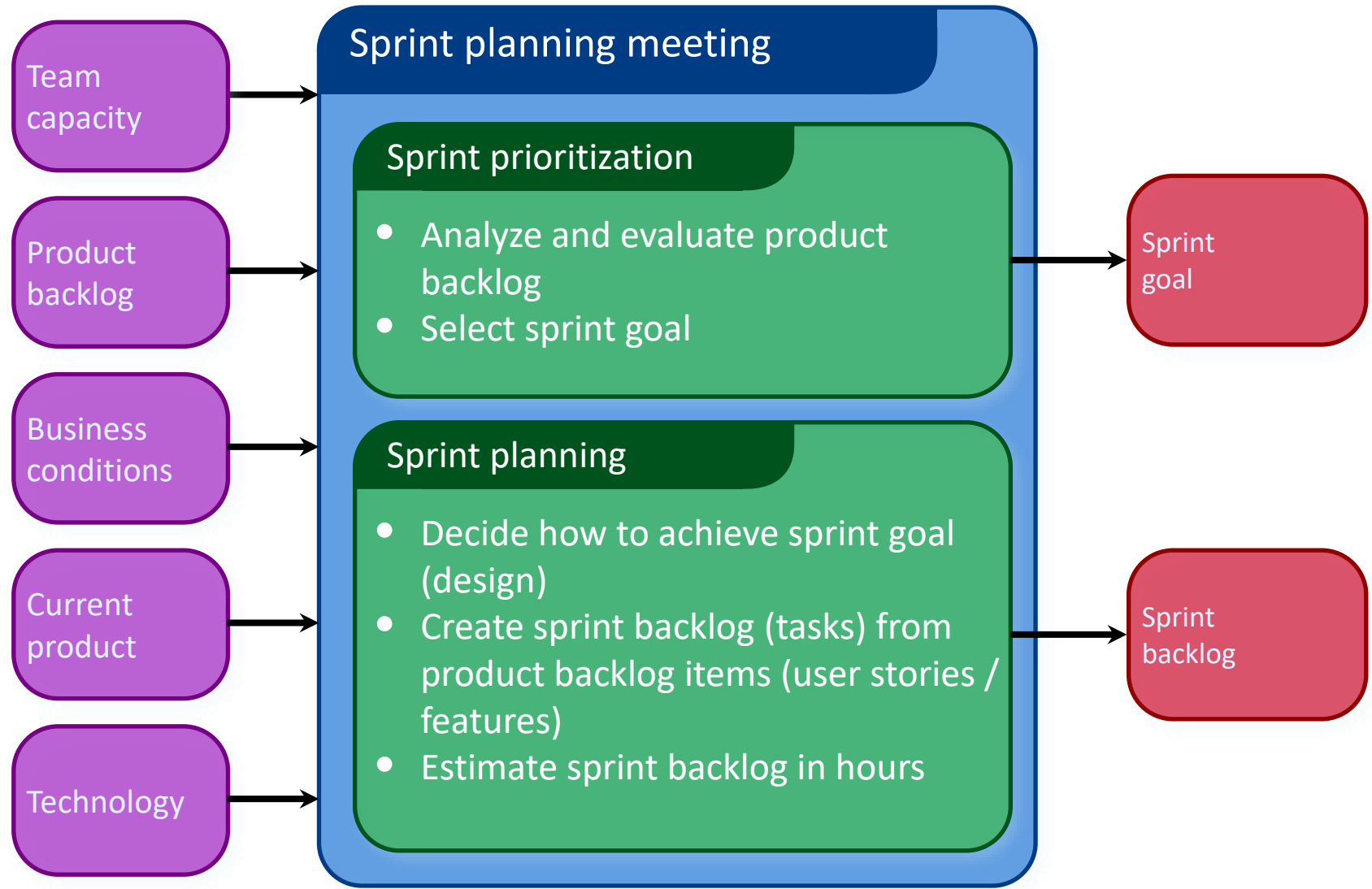
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- Plan sprint durations around how long you can commit to keeping change out of the sprint

# Sprint planning

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# Sprint planning

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- Team selects items from the product backlog that they can commit to completing
- Sprint backlog is created
  - ▣ Tasks are identified and each is estimated (1-16 hrs)
  - ▣ Team collaboratively does this

As a vacation planner, I want to see photos of the hotels.

Code the middle tier (8 hours)  
Code the user interface (4)  
Write test fixtures (4)  
Code the foo class (6)  
Update performance tests (4)

# What is the Product Backlog

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- A list of all desired work on the project (the requirements)
  - ▣ Usually a combination of
    - story-based work (“let user search and replace”)
    - task-based work (“improve exception handling”)
- List is prioritized by the Product Owner
  - ▣ Typically a Product Manager, Marketing, Internal Customer, etc.
  - ▣ Priority groupings (high, medium, low ... etc)
  - ▣ Reprioritised at the start of each sprint
  - ▣ Spreadsheet (usually)

# To create a Sprint Backlog you must have a (Sprint) goal

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## Database Application

Make the application run on SQL Server in addition to Oracle.

## Life Sciences

Support features necessary for population genetics studies.

## Financial services

Support more technical indicators than company ABC with real-time, streaming data.

# From Sprint Goal to Sprint Backlog

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- Scrum team takes the Sprint Goal and decides what tasks are necessary
- Team self-organizes around how they will meet the Sprint Goal
  - ▣ Manager does not assign tasks to individuals
- Managers don't make decisions for the team
  
- Sprint Backlog is created

# Sprint backlogs during the sprint

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- Changes
  - ▣ Team adds new tasks whenever they need to, in order to meet the Sprint Goal
  - ▣ Team can remove unnecessary tasks
  - ▣ But: Sprint Backlog can only be updated by the team
  
- Estimates are updated whenever there's new information

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# Sprint review meeting

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- ❑ Team presents what it accomplished during the sprint
- ❑ Typically takes the form of a demo of new features or underlying architecture
- ❑ Informal
  - ▣ Two hour prep time
  - ▣ No slides
- ❑ Participants
  - ▣ Customers
  - ▣ Management
  - ▣ Product Owners
  - ▣ Engineering team



# Sprint Retrospective meetings

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- Typically 15–30 minutes
- Done after every sprint
- Feedback meeting – time to reflect on how things are going...
  
- Many participants
  - ▣ ScrumMaster
  - ▣ Product owner
  - ▣ Team
  - ▣ Possibly customers and others



# Start/Stop/Continue

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Whole team gathers and discusses what they'd like to:

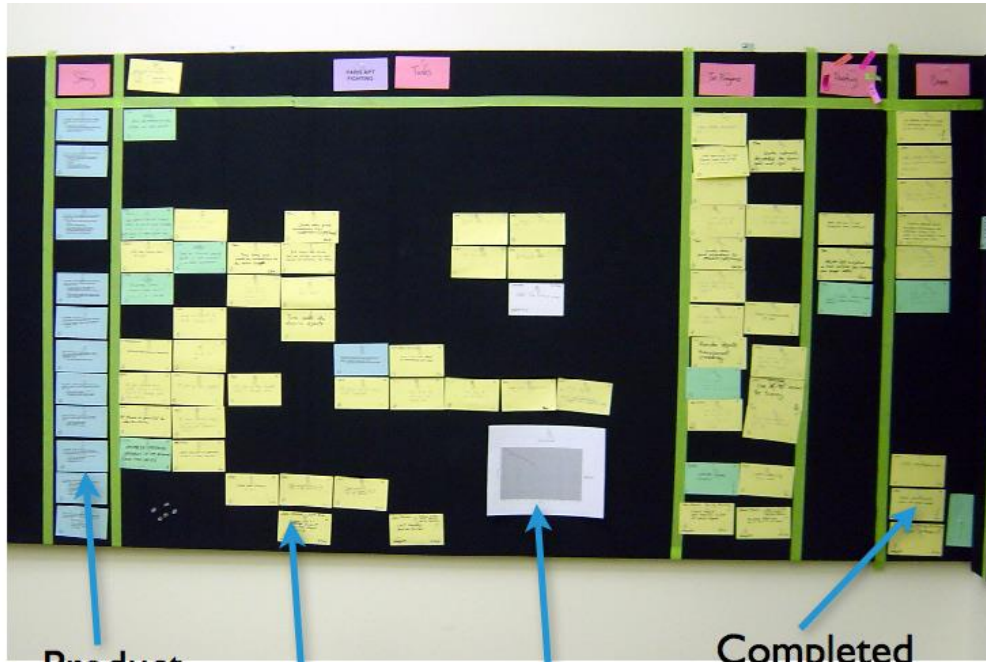
Start doing

Stop doing

Continue doing

# War room

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Product backlog

Tasks to do

Burndown chart

Completed tasks



# Pros/Cons of Agile Methods

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## ■ *Advantages*

- *Completely developed and tested features in short iterations*
- *Simplicity of the process*
- *Clearly defined rules*
- *Increasing productivity*
- *Self-organizing*
- *Each team member carries a lot of responsibility*
- *Improved communication*
- *Combination with Extreme Programming*

## ■ *Drawbacks*

- *“Undisciplined hacking” (no written documentation)*
- *Violation of responsibility*
- *Current mainly carried by the inventors*
- *Employee Burnout & Fatigue.*